



BULLETIN No. 28.

DEPARTMENT OF AGRICULTURE

OF

BRITISH COLUMBIA.

PRODUCTION OF EGGS.

HONOURABLE W. J. BO
Ministe

SIR, I have the
No. 28, on Egg Produ

Victoria, British Colum
June 14th, 1910.

W. J. BOWSER, K. C.,
Minister of Agriculture.

have the honour to submit herewith for your approval Bulletin
egg Production, compiled by M. A. Jull, Provincial Poultry Expert.

I have the honour to be,

Sir,

Your obedient servant,

WM. E. SCOTT,
Deputy Minister of Agriculture.

British Columbia,
th, 1910.

THE fresh egg
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PRODUCTION OF EGGS.

By M. A. JULL.

Fresh egg is one of the most staple of all food products. It seems to be taking the place of the different classes of meats to a very great extent, and is regarded as a necessity more than ever. This is due to the superior quality of the goods, and the more attractive way placed on the market. The quality of any product has a great deal to do with the demand and the price paid. Consumers always look for quality, and this seems to be especially true when prices for the different food products are high. If they are supplied with the right goods they are usually quite willing to pay well for them. This is the consumer's viewpoint. The position of the consumer should be realised by the producer, for it is in his interests. Also, it costs as much to produce eggs and poultry as it does to produce stock of superior quality, and he has to sell the poor stock. Unless poultrymen produce extra choice stock they cannot get and hold the trade, which buys good poultry and eggs, and is willing to pay the price for them. This should be the producer's

Just here is an important question for the egg-collecting station. There should be plenty of open markets, and all that is needed is to supply them with goods of quality. Quality sells itself. The station should be in a place where the market eggs of superior quality, and this fact, coupled with the principle, should be the means of benefit to all interested. The principle of co-operation is a good one, but its success and stability depend upon the class of eggs that are handled. The egg is at its best when just as it leaves the longer it takes to reach the consumer the less it is worth. In order to sell to the best advantage, the egg must be fresh, clean, and uniform in colour and size.

The chief essentials which must be considered in the production of eggs are stock, food, houses, and exercise. In this discussion we shall consider only the question of food. It may be interesting to note that many poultrymen place the importance of good feeding, while others place the whole emphasis upon the food and the method of feeding. Food is only one factor which affects egg-production, but it is one of the most important factors. To get the best results from proper feeding, the birds must be of good quality with plenty of inherited stamina, and they must be housed and handled properly. The laying stock should not only be pure-bred, but it should be well-bred. In every variety there is a great difference among the strains. With the best strain, and giving it proper care, then the proper feeding will have a great influence upon the number of eggs laid.

THE EGG—THE FOOD.

This is an important question of egg-production, many experiments have been conducted on, and results obtained which show that food affects the quality

PERCENTAGE COMPOSITION OF FOODS.

Grains.

	Water.	Ash.	Protein.	Carbohydrates.	Fat
Wheat	10.5	1.8	11.0	73.7	2.0
Oats	10.0	1.5	10.5	71.7	2.3
Barley	11.0	3.0	11.8	69.2	5.0
Rye	10.5	2.0	10.2	65.5	1.8
Clay	10.0	2.4	12.4	72.5	2.9
Wheat Bran	11.07	5.18	14.5	65.5	3.6
Wheat Middlings	11.8	2.8	15.22	65.7	4.5
Flour	12.8	2.1	10.1	51.1	21.2
Wheat Meal (N. P.)	9.0	5.0	15.0	45.6	3.0
Wheat Meal	8.1	1.0	28.3	51.0	10.7
Wheat grains, dried	8.0	3.4	24.1	57.8	6.7

Green Food.

	Water.	Ash.	Protein.	Carbohydrates.	Fat
Alfalfa	71.8	2.7	4.8	10.7	1.0
Yerba	80.0	1.7	3.1	13.6	0.7
Chickweed	88.2	1.82	2.57	6.70	0.6
Chickweed	80.2	2.7	3.74	14.90	0.40
Wheat	85.7	2.0	2.4	9.3	0.6
Wheat	81.2	1.0	1.4	1.2	0.2
Wheat	80.5	1.4	2.4	5.40	0.4

Animal Food.

	Water.	Ash.	Protein.	Carbohydrates.	Fat
Condensed Milk	90.6	0.7	3.0	5.3	0.1
Large Cheese	72.0	1.8	2.0	4.3	0.1
Termilk	90.3	0.7	3.0	4.5	0.5
Scraps	10.7	4.1	6.0	0.3	13.7
Bones	32.8	33.0	2.8	2.5	30.6
Blood	0.95	3.08	72.0	1.08	3.15

ANALYSES OF FOWLS AND EGG.

The analyses of the fowls include the feathers, bones, blood, etc.

	Water.	Ash.	Protein.	Carbohydrates.	Fat
Wheat	55.8	3.8	21.6	..	17.0
Oats	55.4	3.4	21.2	..	18.0
Barley	41.6	3.7	19.4	..	33.0
Egg	65.7	12.2	11.1	..	8.0

FEEDING.

Activity is a most important essential. Wheat, oats, peas, buckwheat, with corn, is very good for summer feeding, although the proportion of corn should be increased for winter feeding. These grains should be fed as much as possible, giving wheat in the morning, and in the winter time in the afternoon. Other grains may be mixed in throughout the daytime. A mixture of grain for summer feeding may be made of 10 lbs. wheat, 5 lbs. 2 lbs. barley, and 1 lb. corn. To this may be added buckwheat, flax seed, or Kaffir corn. The principal thing in feeding grains is to keep the hens scratching practically all of the time. The grain should be scattered in the litter, so that the hens will have to scratch for every grain. It is not wise to feed too much corn, since it is a fattening food, and will make the hens over-heat themselves. Wheat and oats are particularly good summer grains.

Over the methods of feeding grains, mashes, and other poultry foods, one must always remember that activity is the life of the hen. No hen, however well treated, will give best results unless it is well fed.

Exercise plays an important part in egg-production. The number of eggs produced depends upon the health of the hen, and her vigour comes largely from her activity.

GRAINS.

Wheat is used to a greater extent than any other poultry food. Although comparatively little is raised within the Province, it is found to be one of the cheapest forms of our foods. It is a safer food than most other grain foods, and the fowls relish it very much. Wheat that has been frosted slightly is of equal feeding value with good wheat, and may be substituted for the higher-priced grain. Shrunk wheat has, in fact, a higher protein content than plump wheat, and considerable saving may be made by purchasing at a low price wheat that cannot be used for flour-making purposes. This is one thing that many poultrymen of this Province must learn, that the great majority of our frozen wheat which comes from the prairies is of equal feeding value with our high-grade milling wheats, provided that the wheat has not been frozen too early in maturity.

Corn.

In many places corn is fed almost as largely as wheat. However, this does not infer that it is as good as wheat. It is richer in carbohydrates and is an excellent fattening food. It is very valuable for laying-stock in winter time. During our long, cold nights in winter the fowls must have something to keep their bodies warm, and corn suits very well as it tends to retain the heat of the body while the fowls are on the roost.

Oats.

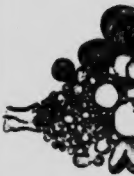
Oats have a certain percentage of hull, and are not as valuable as wheat or corn. Unless they are very plump fowls do not relish them. Since the hull of the oat is almost indigestible, oats which are poor in quality should never be fed to fowls. On the other hand, hulled oats are one of our best foods. It is not as fattening as corn or wheat, but seems to be a great tissue-builder. Oatmeal is excellent for chicks, and sprouted oats makes an excellent food for chickens, growing stock, and laying hens.



EGG TYPE CONFORMATION.

Pelvic
bone

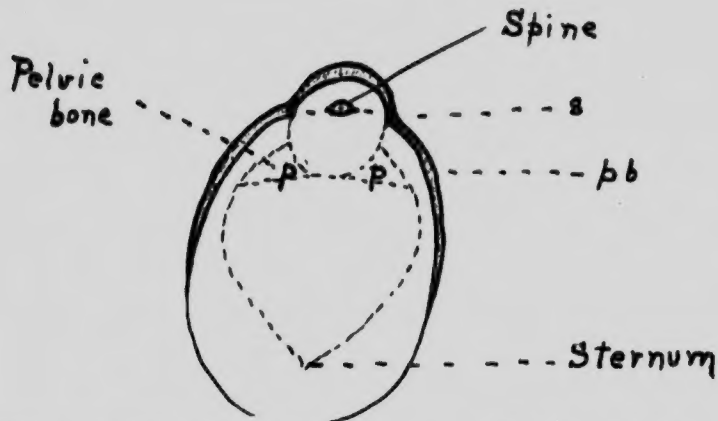
Distance across
bone



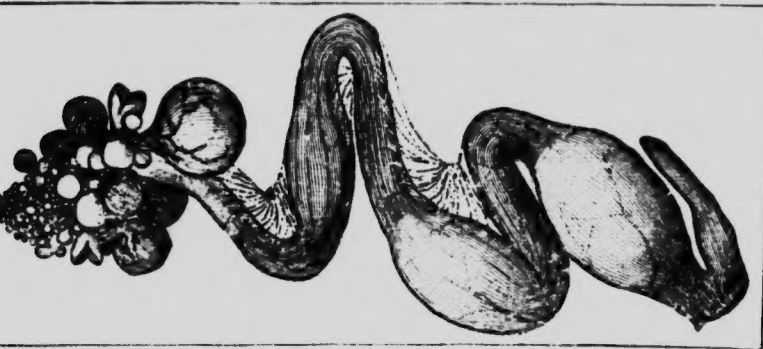
Barley is
most of the
A little barley
as a food for

Peas make
They are very
will help to
like peas very

In our
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Distance across pelvic opening ($p p$); distance from spine (s) to point of pelvic bones ($p b$); verticle distance from ($p b$) to rear of sternum.



Ovary and Oviduct.

Barley.

Barley is rather a heating and fattening food, and is not as palatable as most of the other grains; consequently, it is not extensively fed to poultry. A little barley is good to give variety, and it may also be found valuable as a food for fattening fowls.

Peas.

Peas make an excellent grain and should be used more than they are. They are very rich in protein, and a good proportion of peas in a grain ration will help to make up the deficiency of protein in the other grains. Fowls also eat peas very much.

Mash Feeding.

In our mash feeding, which is very necessary, besides the grains which we feed we have principally wheat bran and middlings, crushed oats, barley